Title (en)

CERAMIC ELECTROSTATIC CHUCK AND ITS USE

Title (de)

KERAMISCHE ELEKTROSTATISCHE HALTEVORRICHTUNG UND DEREN VERWENDUNG

Title (fr)

CROCHET ELECTROSTATIQUE EN CERAMIQUE ET SA UTILISATION

Publication

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Application

EP 02741903 A 20020610

Priority

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- US 89263401 A 20010628

Abstract (en)

[origin: US6483690B1] A sintered ceramic electrostatic chucking device (ESC) which includes a patterned electrostatic clamping electrode embedded in a ceramic body wherein the clamping electrode includes at least one strip of a sintered electrically conductive material arranged in a fine pattern. Due to the fineness of the electrode pattern employed, stresses induced during manufacture of the ESC are reduced such that the clamping electrode remains substantially planar after the sintering operation. The resulting ESC allows for improved clamping uniformity. Another ESC includes an insulating or semi-conducting body and a clamping electrode having a high resistivity and or a high lateral impedance. The electrostatic chucking device provides improved RF coupling uniformity when RF energy is coupled thorough the clamping electrode from an underlying RF electrode. The RF electrode can be a separate baseplate or it can be a part of the chuck. The ESC's may be used to support semiconductor substrates such as semiconductor wafers in plasma processing equipment.

IPC 8 full level

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